

Ref.	Material	Temperature (°C)	Strain Rate (s ⁻¹)	Yield Stress (MPa)	Ultimate Tensile Stress (MPa)	Elongation to Break (%)
1	Al-10Mg	25	0.001	100	150	50
2	Al-10Mg	25	0.01	110	160	55
3	Al-10Mg	25	0.1	120	170	60
4	Al-10Mg	25	1	130	180	65
5	Al-10Mg	25	10	140	190	70
6	Al-10Mg	25	100	150	200	75
7	Al-10Mg	25	1000	160	210	80
8	Al-10Mg	25	10000	170	220	85
9	Al-10Mg	25	100000	180	230	90
10	Al-10Mg	25	1000000	190	240	95
11	Al-10Mg	25	10000000	200	250	100
12	Al-10Mg	25	100000000	210	260	105
13	Al-10Mg	25	1000000000	220	270	110
14	Al-10Mg	25	10000000000	230	280	115
15	Al-10Mg	25	100000000000	240	290	120
16	Al-10Mg	25	1000000000000	250	300	125
17	Al-10Mg	25	10000000000000	260	310	130
18	Al-10Mg	25	100000000000000	270	320	135
19	Al-10Mg	25	1000000000000000	280	330	140
20	Al-10Mg	25	10000000000000000	290	340	145
21	Al-10Mg	25	100000000000000000	300	350	150
22	Al-10Mg	25	1000000000000000000	310	360	155
23	Al-10Mg	25	10000000000000000000	320	370	160
24	Al-10Mg	25	100000000000000000000	330	380	165
25	Al-10Mg	25	1000000000000000000000	340	390	170
26	Al-10Mg	25	10000000000000000000000	350	400	175
27	Al-10Mg	25	100000000000000000000000	360	410	180
28	Al-10Mg	25	1000000000000000000000000	370	420	185
29	Al-10Mg	25	10000000000000000000000000	380	430	190
30	Al-10Mg	25	100000000000000000000000000	390	440	195
31	Al-10Mg	25	1000000000000000000000000000	400	450	200
32	Al-10Mg	25	10000000000000000000000000000	410	460	205
33	Al-10Mg	25	100000000000000000000000000000	420	470	210
34	Al-10Mg	25	1000000000000000000000000000000	430	480	215
35	Al-10Mg	25	10000000000000000000000000000000	440	490	220
36	Al-10Mg	25	100000000000000000000000000000000	450	500	225
37	Al-10Mg	25	1000000000000000000000000000000000	460	510	230
38	Al-10Mg	25	10000000000000000000000000000000000	470	520	235
39	Al-10Mg	25	100000000000000000000000000000000000	480	530	240
40	Al-10Mg	25	1000000000000000000000000000000000000	490	540	245
41	Al-10Mg	25	10000000000000000000000000000000000000	500	550	250
42	Al-10Mg	25	100000000000000000000000000000000000000	510	560	255
43	Al-10Mg	25	1000000000000000000000000000000000000000	520	570	260
44	Al-10Mg	25	100	530	580	265
45	Al-10Mg	25	1000	540	590	270
46	Al-10Mg	25	1000			

1. A method for acceleration and deceleration control for supplying a movement command which has been subjected to acceleration and deceleration processing to a servo control section, wherein
acceleration in said acceleration and deceleration processing is determined such that a speed-acceleration curve of said movement command which has been subjected to acceleration and deceleration processing may lie along a predetermined speed-acceleration curve; and
said speed-acceleration curve is set for each axis and dependent on acceleration or deceleration.
2. The method for acceleration and deceleration control according to claim 1, wherein said speed-acceleration curve is set for each direction of movement.
3. The method for acceleration and deceleration control according to claim 1, wherein, in acceleration, an acceleration in said acceleration and deceleration processing is obtained so that it lies along said speed-acceleration curve, while, in deceleration, the processing is done with a fixed acceleration.
4. The method for acceleration and deceleration control according to claim 1, 2 or 3, wherein, in acceleration, an acceleration in said acceleration and deceleration processing is obtained so that it lies along said speed-acceleration curve,

while, in deceleration, the processing is done through filtering for a certain period of time with respect to the fixed acceleration.

5. A numerical control device, comprising:
 a memory for storing, for each control axis, the relation between individual speeds in acceleration and corresponding restricted accelerations and also the relation between individual speeds in deceleration and corresponding restricted decelerations, in the form of a table;

acceleration-deceleration determination means for determining as to whether or not an acceleration operation should be done, an operation of a command speed should be done or a deceleration operation should be done, for said axis, in the present processing cycle:

speed determination means for determining speeds in the present processing period, by using a speed in the present processing cycle as a command speed in the case where said acceleration-deceleration determination means decided that an operation of a command speed be applied, by reading from said memory a restricted acceleration corresponding to the speed of said axis obtained in the previous processing cycle to determine a speed in the present processing cycle using said restricted acceleration thus read in the case where said acceleration-deceleration determination means decided that

para #1 → acceleration be applied, or by reading from said memory a restricted deceleration corresponding to the speed of said axis obtained in the previous processing cycle to determine a speed in the present processing cycle using said restricted deceleration thus read in the case where said acceleration-deceleration determination means decided that deceleration be applied; and

output means for finding data on the amount of movement of said axis in the present processing cycle by using the speed found by said speed determining means, and then outputting said data on the amount of movement to a servo control system for said axis.

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